

Title (en)

Transparent coated metal sheet containing effect pigments coated with metal oxide

Title (de)

Transparent beschichtetes Blech, enthaltend mit Metalloxid beschichtete anorganische Pigmente

Title (fr)

Feuille métallique revêtue transparente contenant des pigments inorganiques recouverts d'oxyde métallique

Publication

**EP 1375604 A1 20040102 (EN)**

Application

**EP 03014615 A 20030626**

Priority

- JP 2002188364 A 20020627
- JP 2002194211 A 20020703
- JP 2002207766 A 20020717
- JP 2003010140 A 20030117

Abstract (en)

A clear coated metal sheet has a clear-paint film 1, which disperses an interference-coloring pigment 4 therein, formed on a base metal sheet 3 directly or through an under clear coat 6. The pigment 4 comprises transparent or translucent inorganic flakes, e.g. mica, glass, alumina or silica, coated with one or more metal oxide layers, e.g. TiO<sub>2</sub>, SiO<sub>2</sub>, ZrO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, SnO<sub>2</sub>, Fe<sub>3</sub>O<sub>4</sub>, Cr<sub>2</sub>O<sub>3</sub>, ZnO or Al<sub>2</sub>O<sub>3</sub>. Incident light Lin, which enters in the clear-paint film 1, is reflected on the pigment 4 and a surface of the base metal sheet 3. A colored surface with metallic luster is observed due to interference of light on the pigment 4. Since a color tone is stable without thickness effect of the clear-paint film 1, the clear sheet is useful as decorative members. <IMAGE>

IPC 1-7

**C09D 5/36**

IPC 8 full level

**B05D 5/06** (2006.01); **B05D 7/14** (2006.01); **C09D 5/36** (2006.01)

CPC (source: EP US)

**B05D 5/067** (2013.01 - EP US); **B05D 7/14** (2013.01 - EP US); **C09D 5/36** (2013.01 - EP US)

Citation (search report)

- [X] US 4297405 A 19811027 - KASAHARA NOBUYOSHI, et al
- [XA] WO 9931023 A1 19990624 - MERCK PATENT GMBH [DE], et al
- [A] EP 0388932 A2 19900926 - BASF CORP [US]

Cited by

WO2011161482A1; EP2057096A4; CN101815752A; EP1834759A1; FR2866820A1; EP2386670A4; EP1871711A4; US7303622B2; CN102650036A; CN103038676A; WO2009048515A1; US11428854B2

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

**EP 1375604 A1 20040102**; US 2004005471 A1 20040108

DOCDB simple family (application)

**EP 03014615 A 20030626**; US 60644503 A 20030626